

characteristics contributing to a conduit much stronger, more resilient and longer lasting than the conduit, even as originally constructed. The resulting structure is alternatively described as having three layers: a porous, mineral containing substrate layer 18, a layer of thermosetting material 54, and a layer of thermoplastic material 28. The interfaces between adjacent ones of the three layers are characterized by strong covalent bonds. Significantly, the resultant structure 110 makes use of the entire pre-existing, corroded substrate 18 and whatever residual strength and physical characteristics the deteriorated substrate 18 possessed prior to restoration.--

IN THE CLAIMS:

Please amend claims 47 and 55-60 as follows:

47. (Amended) A corrosion-resistant chemically continuous composite conduit having an inside and an outside, said conduit comprising from the outside to the inside:

- a) a first layer comprising a porous, mineral-containing substrate;
- b) a second layer comprising a thermosetting material, said thermosetting material containing a silane and a curing agent comprising isocyanate groups;
- c) a third layer comprising a thermoplastic material, said thermoplastic material impregnated with a reactive resin;

wherein an interface between said first and second layers comprises covalent bonds between said silane in said second layer and minerals in said first layer;

wherein an interface between said second and third layers comprises covalent bonds between said ~~isocyanate~~ isocyanate groups of said second layer and said reactive resin of said third layer; and

wherein said first second and third layers are bonded together with sufficient shear strength to transmit and distribute loads between said layers.

51. The conduit of claim 47, wherein said reactive resin is ~~poly(vinyl chloride-co-vinyl acetate-co-2-hydroxypropyl acrylate)~~ 2-propenoic acid, 2-hydroxypropyl ester, polymer with chloroethene and ethenyl acetate.

55. The method of claim 54, wherein said ~~first layer~~ conduit comprises a cementitious, ceramic, clay, brick, or metallic substrate.

56. The ~~conduit~~ method of claim 54, wherein said thermosetting material is polyurethane resin.

57. The ~~conduit~~ method of claim 54, wherein said thermosetting material contains a surfactant.

58. The ~~conduit~~ method of claim 54, wherein said reactive resin is ~~poly(vinyl chloride-co-vinyl acetate-co-2-hydroxypropyl acrylate)~~ 2-propenoic acid, 2-hydroxypropyl ester, polymer with chloroethene and ethenyl acetate.